



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:)
VINSON ET AL.)
)
Serial No. **09/915,762**) Examiner: T. Dinh
)
Filing Date: **July 26, 2001**)
)
Confirmation No. **7467**)
)
For: **DECOUPLING CAPACITOR CLOSELY**)
COUPLED WITH INTEGRATED) Art Unit: 2827
CIRCUIT)
)

DECLARATION UNDER 37 CFR SECTION 1.131

Mail Stop Non-Fee Amendment
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

We, **Robert S. Vinson, Joseph B. Brief, Donald J. Beck, and Gregory M. Jandzio**, hereby declare:

1. We are the co-inventors of the subject matter of the above-identified patent application.

2. We conceived of the subject matter of the above-identified patent application while working in our laboratories in the United States at Harris Corporation in Palm Bay, Florida prior to March 30, 2001, the effective date of U.S. Patent No. 6,441,483 to Akram.

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3. We conceived of an integrated circuit chip module that would have improved decoupling capacitor characteristics with decreased equivalent series inductance and equivalent series resistance. We worked diligently and reduced to practice before March 30, 2001 a decoupling capacitor assembly mounted on an integrated circuit die that included a capacitor carrier secured on the exposed surface of the integrated circuit die and a decoupling capacitor carried by the capacitor carrier. Wire bonds extended from the decoupling capacitor assembly to the die pads and from the die pads to the substrate bonding pads as shown in Exhibits 1 and 2.

4. Exhibit 1 includes a top plan view and a side elevation view showing a decoupling capacitor assembly that includes the capacitor carrier, decoupling capacitor, and wire bonds. Exhibit 2 is a side elevation view showing a capacitor, a metallized thin film as a metallized carrier, the carrier, and die.

5. After reducing to practice the invention before March 30, 2001, we worked to improve the invention and filed a patent application on our invention.

6. We hereby declare that all statements made herein of our own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge

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that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

7-01-03
Date

7/02/03
Date

07/01/03
Date

7/1/03
Date

Robert S. Vinson
ROBERT S. VINSON

Joseph B. Brief
JOSEPH B. BRIEF

Donald J. Beck
DONALD J. BECK

Gregory M. Jandzio
GREGORY M. JANDZIO

Top picture is an active carrier with wire bonds from the die to the substrate metalization

Bottom substrate is a side view of the same configuration.

- Note the bonds from the carrier to the die and the wire bonds down to the substrate (not shown here)



